

**REMARKS****Claim Amendments**

Independent Claim 1 has been amended by specifying a particular group of forensic specimens that are not bodily fluids and specifically limiting the specimens to forensic specimens.

Independent Claim 41 specifies a second particular group of forensic specimens that are not bodily fluids and specifically limiting the specimens to forensic specimens.

Independent Claim 42 specifies a third particular group of forensic specimens, some of which are bodily fluids and specifically limiting the specimens to forensic specimens.

**Anticipation Rejection**

Claims 1-5, 9, 10, 12-16, 41, and 42 stand rejected as allegedly anticipated by U.S. Patent No. 5,689,333 to Batchelder, et al. ("Batchelder"). Applicant respectfully disagrees with the basis of the rejection.

While Applicant does not agree with the examiner's argument that the filter wheel in Batchelder is an "electronically tunable filter" as such devices are known in the art, this issue need not be addressed as there are other distinguishing features to the claims in the present application which the examiner did not address in reply to Applicant's arguments in response to the previous Office Action. In the Office Action, the examiner focuses on (a) bodily fluids as specimens and (b) disregarded Applicant's arguments regarding the inapplicability of the filters in the Batchelder reference for performing

forensic analysis. For each of these positions, separately and/or in combination, the examiner's arguments fail and all the claims in the application are therefore allowable over the art of record.

In the current Office Action, the examiner presents no argument that claims incorporating solely non-bodily fluid forensic specimens, such as amended Claims 1 and 41, are anticipated by Batchelder or are obvious over Batchelder in view of any of the art of record. Therefore, these claims should be allowed, as well as all dependent claims therefrom.

The examiner, on page 3 of the Office Action, acknowledges that Batchelder is silent as to the type of specimen that can be used with the Batchelder device (see line 4, first paragraph, page 3 of the Office Action) yet at the end of that paragraph the examiner reverses himself and says that the Batchelder device is capable of operating with any type of specimen. The examiner's unsupported statement that Batchelder is capable of use with any specimen is simply not true and the examiner has offered no evidence to support his position whatsoever and did not include a rebuttal to Applicant's argument in the previous response. Simply stated, the Batchelder device is incapable of any meaningful use in analyzing forensic specimens.

As Applicant stated in it's response to the previous Office Action, the differences between the filters disclosed in Batchelder and those claimed herein are significant and cannot be overlooked.

For example, the filter-wheel described in Batchelder is susceptible to image drift. As the filter wheel switches from one filter to another (in order to select one wavelength

and then another) the image moves relative to the CCD detector. This movement of the image renders it exceedingly difficult, if not practically impossible, to generate a reproducible spectrum at each pixel of the CCD image hypercube. As is known in the art, spectrum and image reproducibility is critical in making analytical measurements but particularly critical in making forensic measurements. In forensic examinations it is almost universal to compare data collected from trace evidence under review by the forensic examiner (the "unknown") to data collected on known exemplars. If the instrument being used to collect the comparison data is not reproducible (which, as stated above, is a fundamental problem of filter-wheel instruments), the instrument is of limited or no value for forensics detection.

The Batchelder device also contains Fabry-Perot filters which are used alone or in conjunction with the filter wheel. The Fabry-Perot filters have a problem associated with a narrow, angular field of view. As a result of the restricted field of view, it is not possible for the technology described in Batchelder to simultaneously provide high spectral resolving power (narrow spectral band transmittance), a large free spectral range (spectral coverage over hundreds of nanometers), and a large angular field of view. The high spectral resolving power is especially critical for Raman detection. The large free spectral range is especially critical for the detection modes based on non-Raman scattered light (light that is reflected, emitted (implies luminescent), transmitted, and elastically scattered). The non-Raman modes of detection are particularly useful in trace evidence detection as they are highly sensitive, though not highly specific. In other words, the non-Raman modes are good at finding the needle in the haystack, but not exceptional at

identifying the needle unless there are known exemplars that can be used for comparison. Raman is extremely good at identifying the trace evidence, once it has been located on the sample, even without known exemplars. Finally, the Batchelder and Treado references (U.S. Patent No. 6,002,476) exploit the use of Raman (inelastic) scattered light. The instant claims are directed at exploiting the use of reflected, emitted (implies luminescent), transmitted, and scattered light.

For the above reasons, the amended independent Claims 1, 41, and 42 are not anticipated by Batchelder. Claims 2-5, 9, 10, and 12-16 all ultimately depend from Claim 1 and are allowed therewith without regard to the additional patentable limitations contained respectively therein.

### Obviousness Rejection

Claims 6-8 and Claim 11 stand rejected as allegedly unpatentable over a combination of Batchelder and secondary references to Rigler (US2004/0114224) and Treado (U.S. Patent No. 6,002,476) for Claims 6-8, and Rigler and Fillard (U.S. Patent No. 5,770,856) for Claim 11. Each of Claims 6-8 and 11 depends, either directly or indirectly, from Claim 1 which as explained is patentable over Batchelder. Nothing in either of the secondary references overcomes the deficiencies of Batchelder as explained above. Accordingly, Claims 6-8 and 11 are deemed patentable by virtue of this dependence without reference to the additional patentable limitations contained therein. Therefore, additional reasons for patentability of each claim need not be discussed.

Accordingly, Applicant respectfully requests the reconsideration and withdrawal of the rejections of Claims 6-8 and 11.

## CONCLUSION

Applicant respectfully submits that all of the claims are in condition for allowance. A notice to this effect is respectfully requested.

If any point remains that is deemed best resolved through a telephonic conversation, the Office is hereby requested to contact the undersigned directly.

Respectfully submitted,



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